



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

MAR 25 2011

Colonel Keith A. Landry
District Engineer
Louisville District Corps of Engineers
Attn: Robert J. Brown
OP-FN, Room 752/3701 Bell Road
P.O. Box 59
Louisville, Kentucky 40201-0059

Subject: Public Notice for LRL 2010-576, Armstrong Coal Company,
Hickory Ridge Surface Mine
Ohio County, Kentucky
Kentucky Division of Mine Permits (KDMP) #892-0112

Dear Colonel Landry:

The U.S. Environmental Protection Agency (EPA), Region 4, has completed a preliminary review of the Public Notice (PN) and accompanying Clean Water Act (CWA) Section 404 permit application materials associated with U.S. Army Corps of Engineers (Corps) Louisville District Individual Permit application (LRL-2010-576) submitted by Armstrong Coal Company, Inc (KDMP #892-0112). The proposed surface coal mining project will impact 4,055 acres of wetlands, 164 linear feet (lf) of perennial, 18,054 lf of intermittent, and 23,908 lf of ephemeral tributaries of Williams Creek in Ohio County, Kentucky. This letter is to present EPA's preliminary concerns about and additional information needs for this project.

Alternatives Analysis – 40 CFR § 230.10(a)

The Guidelines, at 40 CFR Section 230.10(a), provides that no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge that would have less adverse impact on the aquatic ecosystem. The Guidelines consider an alternative practicable if it is capable of being done in light of existing conditions, technology, and expense. While we appreciate the inclusion of alternative mining methods and spoil disposal locations in the Alternatives Analysis of this application, we believe that a more thorough documentation of avoidance methods should be included. For example, the applicant states in section II.A of the "Alternatives Considered but Eliminated" portion of the application, that buffers were considered for streams and wetlands, but were eliminated because of cost. However, no data were provided to support this position. A careful analysis of cost and benefits may reveal additional steps which could be taken to further reduce stream impacts. As this project is proposing to impact almost eight miles of stream, additional effort to first avoid and then minimize impacts to jurisdictional waters is not only a highly desirable goal, but also required under the Section 404(b)(1) Guidelines. Additionally, Mine Sequence Plan and Mine Reclamation Plan maps would be helpful to determine the location of coal seams, and thus the

need for such extensive impacts. The information included within this application packet does not, at this time, provide sufficient justification for 42,126 lf of stream impacts.

The EPA is concerned that the term "practicable" may need additional clarification in order for the applicant to provide the appropriate information. Practicable includes the consideration of cost. The threshold for "practicable" is different from profitable. Practicable refers to a cost that prevents the project from being done. It is unclear how stream and wetland buffers, that represent a very small surface area compared to the entire project area completely prohibits the project from starting.

Compliance with Other Environmental Standards – 40 CFR § 230.10(b) and Significant Degradation of the Aquatic Ecosystem – 40 CFR §230.10(c)

The 404(b)(1) Guidelines, 40 CFR Section 230.10(b) provides that no discharge may be permitted that would cause or contribute to an exceedance of an applicable water quality standard, violate any applicable toxic effluent standard, or jeopardize the existence of threatened or endangered species. Stream assessments on this project site revealed an array of conditions, showing some past impacts from mining. Conductivities in streams ranged from 31 $\mu\text{S}/\text{cm}$ to 930 $\mu\text{S}/\text{cm}$, while Rapid Bioassessment Protocol (RBP) scores likewise reflected a variety of stream habitat quality, ranging from 85/200 to 140/200. Scores from the Kentucky Macroinvertebrate Bioassessment Index and Kentucky Index of Biotic Integrity were low, although it should be noted that fish populations were found in an intermittent stream (Int-18). To further support our review of this permit application, we request the applicant to provide us with water chemistry data collected for the Kentucky Pollution Discharge Elimination System (KPDES) permit application, as well as any additional data submitted with the Surface Mining Control and Reclamation Act (SMCRA) permit application. In addition, the applicant should provide specific plans detailing how water will be treated on-site to avoid any downstream water quality impacts, particularly because under the "Proposed Action Alternative" the applicant states that, "all runoff will be treated within the permit boundaries with no downstream water quality impacts anticipated." In view of the fact that the limited water quality information submitted as part of the CWA 404 permit application suggests that most on-site water quality is currently quite good, the applicant should also consider the possible impacts of decreased of assimilative capacity in Williams Creek through the loss of dilution provided by these streams.

Minimization and Compensation for Unavoidable Impacts – 40 CFR § 230.10(d)

The 404(b)(1) Guidelines, 40 CFR Section 230.10(d) provides that no discharge shall be permitted unless appropriate and practicable steps have been taken which will minimize potential adverse environmental impacts of the discharge on the aquatic ecosystem. Unavoidable impacts require adequate mitigation. The applicant is proposing to return the site to Approximate Original Contour and in so doing, reestablish 14,175 lf of ephemeral and 15,360 lf of intermittent streams. Impacts to perennial waters will be compensated by the creation of wetlands adjacent to intermittent reaches of stream. There is little information provided in the mitigation plan that demonstrates the likelihood for groundwater contributions to sustain the proposed intermittent stream reaches. Given the degree of disturbance to both the surficial soil horizons as well as the underlying geologic strata as a result of surface mining, EPA is concerned that the proposed

intermittent stream reaches will in fact be devoid of groundwater contributions and thus function only as ephemeral reaches at best. In its current form, the proposed mitigation plan leaves 9,733 lf of ephemeral and 2,694 lf of intermittent stream without mitigation or compensation. Additionally, replacing perennial waters with a wetland complex is out-of-kind mitigation and is inconsistent with the 2008 Mitigation Rule. We recommend the applicant revise the mitigation plan to adequately mitigate for all proposed impacts. Finally, it should be noted that headwater streams, such as those described in this application, support a myriad of functions, not limited to sediment and water transport, and their role in nutrient cycling, habitat, and energy supplements to downstream reaches should be considered in determining the functional lift expected from the stream mitigation.

Determination of Cumulative Effects on the Aquatic Ecosystem – 40 CFR §230.11(g)

The 404(b)(1) Guidelines, 40 CFR Section 230.11(g) provides that cumulative effects attributable to the proposed project should be predicted to the extent practicable, including the collective effects of any number of individual discharges in the same watershed, whether by the applicant alone or with others. The applicant did an admirable job of focusing the scope of the cumulative impacts analysis (CIA) and predicting future mining projects, but we believe this analysis could be further strengthened by considering natural resource impacts. For example, as noted by this analysis, surface mining is prevalent around the proposed project. Therefore, the applicant should consider the sum impacts of surface mining, not just those activities of Armstrong Coal, on the water quality of the Green River, which is located very near the Hickory Ridge mine site and is a receiving water for Williams Creek.

Other Considerations

The requirements of Executive Order (E.O.) 12898 and the Presidential Memorandum accompanying it must be addressed appropriately in federal actions—such as federal permitting under Section 404 of the CWA and National Environmental Policy Act (NEPA). Under E.O. 12898, “each Federal agency shall make achieving environmental justice (EJ) part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.” EPA encourages the District to include EJ as part of this permit’s review. Residences may be affected by changes in ground water (drinking water wells), particulate matter, noise, and vibrations. EPA is also concerned that the PN may not have provided the surrounding community with a chance to review and comment.

Lastly, EPA requests that the District provide us with the appropriate NEPA documentation that supports their proposed permit decision. In this determination, EPA recommends that the District consider the cumulative impacts to the watershed from this proposed project taking into account historic water quality, habitat, and human health impacts. The NEPA documentation should address how the proposed mitigation would serve as a basis for supporting a Finding of No Significant Impact. Our NEPA staff are willing to review and comment on draft NEPA documents that are prepared prior to the permit decision.

Additional Information Needs

To summarize, EPA requests the following additional information needed to complete our review of this project:

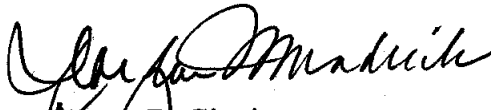
- Any and all supplements to the 404 permit application received by the Corps since 9 February, 2011;
- The original Mine Sequence Plan and Mine Reclamation Plan (MRP) maps submitted with the original 404 application, including any revisions;
- Updated mitigation plans;
- Any additional water quality data associated with the proposed project;
- NEPA and EJ documentation.

Conclusion

In conclusion, EPA believes that the project, as proposed, does not comply with the Clean Water Act Section 404(b)(1) Guidelines. EPA finds this project may have substantial and unacceptable adverse impacts on Aquatic Resources of National Importance (ARNI). Therefore, we recommend denial of this project as currently proposed. As summarized above, additional information is required for us to complete our review and make specific comments and recommendations, including recommending special permit conditions to ensure project compliance with the Section 404(b)(1) Guidelines. This letter follows the field level procedures outlined in the August 1992 Memorandum of Agreement between the EPA and the Department of the Army, Part IV, paragraph 3(a) regarding § 404(q) of the CWA.

I want to thank you and your staff for your cooperation and willingness to address our issues. We look forward to working closely with you and the applicant to resolve the concerns outlined above. If you have any questions, please call me at (404) 562-9258, Eric Somerville (706) 355-8514 or Corrie Maxwell, (404) 562-8007 of my staff.

Sincerely,


James D. Giattina
Director
Water Protection Division

cc: Jim Townsend, Louisville District, Louisville, KY
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